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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,398	07/17/2003	Joseph Carr Meyers	2020913(FGT1689)	1397

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EXAMINER

BEHNCKE, CHRISTINE M

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/604,398

Applicant(s)

MEYERS ET AL.

Examiner

Christine M. Behncke

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30, 32 and 33 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 11-23, 26-30, 32 and 33 is/are rejected.
- 7) ☒ Claim(s) 19 and 22-26 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. This office action is in response to the Remarks filed 10 April 2006, in which claims 11-30, 32 and 33 were presented for examination.

Election/Restrictions

2. Applicant's election of Group II, claims 11-33, in the reply filed on 10 April 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

3. **Claims 1-10** are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10 April 2006.

Claim Objections

4. **Claim 19** is objected to because of the following informalities: lack of antecedent basis for "the third wheel lift status". Appropriate correction is required.

5. **Claim 22** is objected to because of the following informalities: lack of antecedent basis for "the predetermined threshold". Appropriate correction is required.

6. **Claim 23** is objected to because of the following informalities: lack of antecedent basis for "the reacceleration reference velocity". Appropriate correction is required.

7. **Claim 24** is objected to because of the following informalities: lack of antecedent basis for "the reacceleration reference velocity". Appropriate correction is required.

8. **Claim 25** is objected to because of the following informalities: lack of antecedent basis for "the reference velocity". Appropriate correction is required.

9. **Claim 26** is objected to because of the following informalities: lack of antecedent basis for "the predetermined ratio". Appropriate correction is required.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11, 14-17, 27-30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Szabo et al., US 7,040,722.

11. **(Claim 11)** Szabo et al. discloses a method of operating an automobile vehicle comprising: initiating a build cycle (column 3, lines 31-36); storing a peak wheel speed after initiating the build cycle (column 3, lines 37-46) and determining a wheel lift status when a change in the wheel speed is greater than a predetermined value (column 3, lines 37-46).

12. **(Claim 15)** Szabo et al. discloses a method of operating an automotive vehicle comprising: initiating a build cycle (column 3, lines 31-36); storing a peak wheel speed after initiating the build cycle (column 3, lines 37-46); and choosing between a first or a second lift status in response to a change in wheel speed (column 2, lines 3-20).

Szabo et al. discloses determining if there is a change in the wheel speed when a low brake pressure is applied. Szabo et al. does not explicitly disclose the determination of a second wheel speed to determine a change in wheel speed from the peak speed, however it was well known and obvious to one of ordinary skill in the art, at the time of the invention, to determine another wheel speed, this speed would be used to determine a change in wheel rotation after the brake of Szabo et al. was applied, this method of determination would provide an accurate and relative method that could be easily applied to different vehicles without needing to consider vehicle specifics.

13. **(Claim 14)** Szabo et al. further determines a wheel lift status comprising determining a first or second wheel lift status (column 2, lines 3-20).

14. **(Claim 16)** Szabo et al. further discloses wherein the first wheel lift status comprises grounded and the second wheel lift status comprises lifted (column 2, lines 3-20).

15. **(Claim 17)** Szabo et al. further discloses wherein the first wheel lift status comprises absolutely grounded and the second wheel lift status comprises absolutely lifted (column 2, lines 3-20).

16. **(Claim 27)** Szabo et al. discloses a method of controlling an automotive vehicle comprising: initiating a build cycle (column 3, lines 31-36); after the build cycle, initiating a release cycle (column 4, lines 26-29); and determining one of possibly grounded condition, or possibly lifted condition during one of the build cycle or the release cycle (column 2, lines 3-20).

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17. **(Claim 28)** Szabo et al. discloses a method of operating an automotive vehicle initiating an antilock brake monitor mode when the roll control system suspects lift (step 7) and the driver is braking above a minimum pressure level (Figure 2, column 3, lines 53-66); and determining wheel lift in response to the level of wheel deceleration generated while the pressure is being released in the antilock brake monitor mode (column 3, line 62-column 4, line 8).

18. **(Claim 30)** Szabo et al. discloses a method of controlling an automotive vehicle comprising: initiating an antilock brake monitor mode (step 7) having a release cycle (column 4, lines 26-29); and determining a wheel lift or wheel grounded condition in response to the change in wheel speed and a reacceleration threshold (column 3, line 62-column 4, line 8).

19. **(Claims 29 and 32)** Szabo et al. further discloses wherein determining wheel lift comprises determining an absolutely lifted, possibly grounded condition or absolutely grounded in response to the antilock brake monitor mode (column 2, lines 3-20).

Claim Rejections - 35 USC § 102

20. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 11-15, 18-23, 26, 30, 32 and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Holst et al., US 2001/0037677.

21. **(Claims 11, 14 and 15)** Holst et al. discloses a method of operating an automotive vehicle comprising: initiating a build cycle ([0032]); storing a peak wheel speed after initiating the build cycle ([0032]); and determining a second wheel speed to determine a change in wheel speed from the peak speed ([0032]); and determining a wheel lift status when the change in the wheel speed is greater than a predetermined value ([0011] and [0032]-[0033]). Holst et al. further discloses wherein determining a wheel lift status comprises choosing between a first or second wheel lift status in response to the change in wheel speed ([0011]).
22. **(Claim 12)** Holst et al. further discloses determining a slip ratio in response to an applied pressure or torque ([0038]).
23. **(Claim 13)** Holst et al. further discloses ending a build cycle in response to said slip ratio being negative ([0038], Figure 3).
24. **(Claim 18)** Holst et al. further discloses wherein choosing comprises choosing between a first, second, third or fourth status in response to the change in wheel speed ([0030], [0032], [0038]).
25. **(Claim 19)** Holst et al. further discloses wherein the first wheel lift status comprises absolutely grounded, the second wheel lift status comprises absolutely lifted, the third wheel status comprises possibly grounded and the fourth comprises possibly lifted ([0030], [0032], [0038]).

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26. **(Claim 20)** Holst et al. further discloses determining wheel slip ([0038]), wherein choosing comprises choosing between a first or second wheel lift status in response to the change in wheel slip and wheel slip ([0038], Figure 3).
27. **(Claim 21)** Holst et al. further discloses wherein wheel slip comprises wheel slip ratio ([0038]).
28. **(Claim 22)** Holst et al. further discloses wherein the predetermined threshold comprises a reacceleration reference velocity ([0038]).
29. **(Claim 23)** Holst et al. further discloses when the wheel speed is decelerating, setting a reacceleration reference velocity to the wheel speed ([0038, figure 5]).
30. **(Claim 26)** Holst et al. further discloses wherein the predetermined ratio corresponds to a minimum wheel acceleration representing contact with the ground ([0038]).
31. **(Claim 30)** Holst et al. discloses a method of controlling an automotive vehicle comprising: initiating an antilock brake monitor mode having a release cycle ([0032], Figure 5); determining a change in wheel speed ([0032]); and determining a wheel lift or wheel grounded condition in response to the change in wheel speed and a reacceleration threshold ([0038]).
32. **(Claim 32)** Holst et al. further discloses determining wheel lift comprises determining an absolutely lifted, possibly grounded condition or absolutely grounded in response to the antilock brake monitor mode ([0011], [0038]).
33. **(Claim 33)** Holst et al. further discloses determining a wheel slip ([0038]) and determining a wheel lift condition in response to wheel slip and wheel speed ([0038]).

Allowable Subject Matter


34. **Claims 24 and 25** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

35. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine M. Behncke whose telephone number is (571) 272-8103. The examiner can normally be reached on Monday - Friday 8:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


THOMAS BLACK
SUPERVISORY PATENT EXAMINER